SITE RESPONSE SECTION

PROJECT STATUS AND ISSUE REPORT

REPORTING PERIOD: 2nd Quarter 1994 (April, May, June)

PROJECT: McCormick And Baxter Creosoting Company

PROJECT MANAGER: Paul Burnet/Thomas Miller

PROJECT TYPE: State Superfund, HSRAF and Orphan Site Funding

BACKGROUND:

The McCormick & Baxter site was an operating wood treating facility located in north Portland through September 1991. It is situated on the north shore of the Willamette River, directly upstream of the Burlington Northern Rail Road bridge. A residential neighborhood along N. Willamette Blvd. overlooks the site from the northeast. Swan Island shipyards are about one mile upstream, and the St. Johns Bridge is about one mile downstream from the site. The site includes about 43 acres of land and about 15 acres of shallow submerged lands on the Willamette River. McCormick & Baxter owned another wood treating facility in Stockton, California.

The McCormick & Baxter plant was in continuous operation between 1945 and 1991, and treated poles, ties and miscellaneous wood products using creosote, pentachlorophenol and inorganic (arsenic, copper, chromium and zinc) treating solutions. Between 1945 and 1969, process waste water from the plant was discharged directly to the Willamette River. Between 1969 and 1972, waste residues were disposed onsite in an unlined waste pond near the river. After 1972, process wastes were drummed and stored for subsequent disposal at a hazardous waste landfill.

The site is built on sandy dredge spoils placed over the swampy shoreline early in this century. There is no apparent silt layer between fill sands and native sands near the river, but a silt layer is present in varying thicknesses closer to the bluff. Groundwater is at approximately 30 feet bgs, and is affected by seasonal changes, changes in river stage and tidal fluctuations (up to 4 feet diurnally).

Environmental problems at the site were identified in the mid- 1980s. McCormick & Baxter contracted CH2M HILL to conduct environmental investigations on the property, and began sampling groundwater at the site as early as 1983. Data were compiled and submitted to DEQ in January 1985 in the report "Site Water and Soil Investigation Interim Report", and in February 1987 in the report, "Environmental Contamination Site Assessment and Remedial Action Report - Volumes 1 and 2". Primary sources of contamination were identified as the tank farm area, the former waste disposal area, the Cellon (pentachlorophenol in butane and ether) wash area, and areas where freshly treated wood is stored. This report recommended pumping accumulations of creosote out of the ground, building a stormwater treatment system

and covered storage for freshly treated wood, and pilot testing for insitu bioremediation.

DEQ entered into a Stipulated Order with McCormick & Baxter in November 1987 to ensure the following corrective actions were taken at the site:

1. install extraction wells in the tank farm and former waste disposal pond areas;
2. design and install a groundwater pump-and-treat system, and groundwater monitoring program;
3. construct covered wood storage areas for freshly treated wood;
4. construct drip pads in front of retorts;
5. collect and treat stormwater;
6. conduct studies of bioremediation of surface soils.

In December 1988, McCormick & Baxter filed for Chapter 11 bankruptcy. This prevented many of the significant actions listed above from being implemented, though preliminary steps were taken. McCormick & Baxter's bankruptcy reorganization plan was approved in November 1990. As part of this operating plan, DEQ was to receive $250,000 per year and 20% of profits toward payment of environmental investigation and cleanup costs, as well as 50% of any recovery from insurance policies (claims are currently in litigation), until the costs of investigation and cleanup have been repaid. (Note: California's Department of Health Services receives identical payments toward cleanup of the Stockton site.) DEQ holds a first mortgage security interest, up to $20 million, in the property as security for repayment of these costs.

DEQ's Northwest Region, which had obtained the Stipulated Order with McCormick & Baxter in 1987, transferred the project to DEQ's newly-formed Environmental Cleanup Division in 1989. After an evaluation of the project, DEQ concluded that, although considerable work had been conducted by McCormick & Baxter, significant data gaps remained. ECD's contractor began preparing a work plan for a full Remedial Investigation and Feasibility Study. The work plan was completed in August 1990.

DEQ notified McCormick & Baxter in August 1990 that specific measures and plans would be needed to limit risks at the site. Warning signs, fencing and security patrols were required, and a buoy line was installed to keep recreational boaters off the beach. All actions were completed by Fall 1990. Installation of additional fencing on the beach north of the BNRR tracks was requested in October 1990, based on the discovery of creosote at this location. This fencing was installed in July 1991 when water levels receded sufficiently.

DEQ field investigations began in September 1990. Surface and subsurface sediment samples were collected from the river for chemical and bioassay analysis. Surface soil samples were collected for chemical analysis. A groundwater reconnaissance survey was conducted using field test methods to help guide well placement. Well drilling began in October and continued through January 1991, with 14 new shallow and 3 new intermediate wells installed. New and existing wells were sampled in March 1991. Selected subsurface soil samples (collected during well drilling) were submitted for chemical analysis. A number of additional soil borings and

wells were installed as the investigation progressed. Fish and crayfish were collected from the river to assess potential bioaccumulation and histopathological impacts. Two meteorological instrument towers were installed, one on the southern boundary of the site an the other on a residential property on the bluff above the site.

Oily seeps have been periodically noted in several areas along the site beaches.

The site was fenced in October 1992 after fulltime security was removed.

PROJECT STATUS SUMMARY:

The site was finally listed on the National Priorities List as a federal Superfund site on June 1, 1994. Coordination efforts have begun with EPA.

Creosote recovery efforts continue to be a primary focus at the site. Several new creosote extraction wells were also added in fall 1993, and are being developed for addition to the extraction well network. A waste water treatment system is being designed and will be installed during the sumnmer of 1994 to allow higher rates of creosote extraction and to permit pumping of wells with creosote emulsions.

Sediment wells installed in the river showed one area where NAPL was present at a 3-8 foot depth; additional wells will be installed in the summer of 1994. A 100'-long cutoff trench was installed in October/November 1993 on the shoreline below the tank farm area to stop potential flow of creosote into river sediments. The trench is being monitored for accumulations of creosote. Test pits were dug adjacent to the city's pressurized sewer line in May 1994 near the former waste disposal area; no creosote was found along the pipeline.

Hazardous wastes were removed from the site in January and February 1994, including drummed process wastes (remaining when M&B closed), laboratory chemicals, and miscellaneous plant wastes. A total of 97 dmms were removed. Asbestos was removed from the boiler room, dry kiln, Cellon retort pipes, and sections of retorts 1 & 2 in preparation of demolition. A contractor has removed several pieces of equipment for salvage, and will remove several more in the spring and summer of 1994.

DEQ selected a contractor for tank sludge removal and demolition in April 1994. CET Environmental Services was awarded the contract and began demolition in June. Work is expected to continue through August. CET also was awarded a separate contract for treating 350,000 gallons of contaminated stormwater. This work was done under a special permit from DEQ to meet ambient fresh water chronic standards. CET was awarded a third contract for soil removal in "hot spot" areas. This work will be conduct concurrently with demolition activities.

Ability to pay documents requested by DEQ were submitted by Charles McCormick in May 1993. DEQ is reviewing these documents.

INTERIM REMEDIAL ACTIONS

Several creosote extraction wells are continuing to pump on automatic cycles, though most wells are being pumped intermittently. Recovery rates are averaging about 50 gallons/month, but are expected to increase significantly when dual phase/total fluids pumping is initiated in mid 1994.

As noted above, soil removals are being conducted to remove pentachlorophenol from two areas were concentrations were 2 to 20%, arsenic where concentrations were up to 9% and naphthalene crystals at concentrations over 90%.

PUBLIC AFFAIRS

A community work group meeting was held on May 18, 1994. Community attendance was about 8.

Senator Hatfield toured the site on July 7 as part of a fact finding session on reauthorization of Superfiind.

Notice of the DEQ proposed plan was published in the Secretary of State's Bulletin and local newspapers in early January 1993. A fact sheet describing the proposed plan was mailed in late December 1992, and public information meetings held on January 12 and January 26, 1993. A public comment meeting was held on February 2, 1993 though no verbal testimony was received. The comment period was extended one month to March 8, 1993 at the request of a citizen. Three letters of written comments were received, and pertained mostly to continued public involvement. The Record of Decision is now on hold pending NPL listing by EPA.

PROJECT ISSUE SUMMARY

A letter was sent to Union Pacific Railroad requesting they conduct an investigation of contamination in the vicinity of MW-1, where a fuel-type hydrocarbon was found. UPRR has indicated they will pressure-test the pipeline, and dig test pits if necessary prior to signing a voluntary letter agreement.

Security has become an increasing problem at the site, with the barbed wire being cut and graffiti being sprayed on the site. Measures are being taken to increase warning signs, install additional lights, install an audible alarm to the office building, and add periodic security patrols.

The proposed plan identifies efficient ways to deal with contamination at the site, but none of the actions will restore the site; contamination is too severe for restoration to be practicable. Little treatment is proposed. Total costs are expected to be approximately $20 million.

A demand letter was sent to the McCormicks requesting financial information to be used in an ability to pay study. DEQ is reviewing the data submitted.

The continuing sediment NAPL investigation will address control/containment options for highly contaminated sediments. Sediment boring results indicate that contamination has moved out under the river, to depths beneath the bottom of the river channel. Cleanup to "background" levels (near zero) over the entire site, and to maximum depths encountered, appears to be infeasible. While contamination is evident at considerable depth, results of the biological sampling (fish and crayfish) do not show tissue accumulations of site contaminants at significant levels nor evidence of tumors (fish); contaminants may be covered by a thin layer of recent sediment accumulations. Chemical analyses show contaminant concentrations in sediments dropping significantly after 10-20 feet, though contamination is visible to significantly greater depths.